INSTRUCTION MANUAL

HORSE RACE ANALYST PROGRAM

Horse Race Analyst

CAT. NO.
26-3530

Radio Shack
TRS-80
POCKET
COMPUTER
SOFTWARE

®

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HORSE RACE ANALYST™
USING THE 5/10 SYSTEM

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A DIVISION OF TANDY CORPORATION
FORT WORTH, TEXAS 76102

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Introduction

Forty years of handicapping experience is now available in an easy to understand computer program. Amateur and experienced horse race enthusiasts alike can enjoy the flexibility and simplicity of the program. Previous knowledge of computers is not required.

The entire program can be stored in the Pocket Computer and is available for immediate use. It can even be taken to the track to use between races!

You can enter data directly from the East or West coast versions of the Daily Racing Form. The program provides calculations using the past performances of the horses to determine the predicted winner of a race regardless of the odds. The basic factors are conventional-speed, class, pace, track condition, horse condition and consistency.

Features

- Used for claiming and allowance races (maiden race horses usually do not have sufficient history).
- Data entry identical to Daily Racing Form format.
- Uses past performances from different distances.
- Corrects past performances at different distances.
- Evaluates races of lengths from 5 furlongs to 1-3/16 miles.
- Calculates a score for each evaluated horse that can be compared with other entries to predict the likely winner.

Operating Procedures

All of the calculations and formulas are stored in the Pocket Computer. The Daily Racing Form (DRF) past performance data is entered by first pressing SHFT, then the appropriate key. The Horse Score is determined by first pressing SHFT, then the N key.

The program package contains a special plastic overlay which fits over the bottom two rows of keys. The overlay describes the special function that has been assigned to each key. For example, SHFT G asks for entry of the Track Condition of a race. SHFT K will request entry of the Finish Position of the race. Keyboard entries and racing form data are normally read from left to right. Required knowledge of the Pocket Computer is minimized because of this straight-forward relation to the Daily Racing Form data.

The 5/10 System Program is loaded and operated in the DEF mode.

First, be sure the computer is inserted in the Interface and the tape recorder plugs are connected correctly.

Turn on the Pocket Computer and press the MODE key until DEF appears on the display.

Rewind the tape and set the recorder to "Play." Type C L O A D " 5 / 1 0 " and press ENTER.

You will hear the program as it loads into the computer. When the program is loaded, the tape will stop and the computer will show a > on the left side of the display. You are now ready to use the 5/10 System Program.

Once a calculation or data entry is completed, the value is stored in one of 26 variable locations, A-Z. These keys are not the same as the Shifted keys. For example, the winning time of a race (entered with SHFT F) is stored in the computer's "F" register.

Example

To recall the value stored for the winning time in a particular race you would press F and ENTER.

To provide maximum flexibility, you can enter a value for an individual race in any order. Therefore, if you skip an entry or make an entry error you can repeat the entry as long as it is on the same race. The exception to this is the "Speed Rating." Once the Speed Rating is entered, a calculation is made for the race being entered. An additional speed rating entry made for the same race will give an erroneous Horse Score.

Entries for a new race will replace previously stored values. It is recommended that before entering data to evaluate a horse's history races, you press SHFT and then the SPC key to clear the data. This will help to insure accurate evaluation.

A list of the Variable Storage Keys and the information each contains is shown in Appendix E.

Details of Operation

This program lets you compute the Horse Score for any horse in a race. At the completion of each evaluation, the Horse Score will be displayed. This value is compared to other race entrants to determine the predicted winner. The horse with the highest Horse Score in a race is the predicted winner. Often, two horses will be only decimal points apart. Your choices are:

- Pass the race.
- Bet multiple horses.
- Use intuition.
- Consider other factors (such as weight).

We can't guarantee that this system will enable you to choose a winner. As with all systems, none are perfect.

The object of this system is to identify potential race winners within the race entrants so that you can more accurately bet the odds.

The basis of the system is to use the recent history of race entrants and compare their predicted performance. This requires entry of past performance data for each horse to be evaluated. The data is taken directly from the Daily Racing Form.

The outcome of certain races is so variable that it is impossible to get consistent results from any system.

These races are:

Maidens—By definition, maiden races and horses which have no record to examine. The same is true of two year old horses.

Stakes and Handicap Races—Horses in these races are high quality. On any given day, any horse in the field can win.

Off-Tracks—Off-tracks suit some horses, but not others. There is no consistent way to evaluate horses that will be racing on an off-track.

Weight—Weight can be a significant factor, particularly in routes. The size of the horse also becomes significant. Beware of allowance races when the weight differential is significant. This is especially true when the Horse Scores of two horses are close (within a point or two).

History—Horses tend to hold their condition for a finite period of time. Therefore, do not consider past performance races older than six months. Usually, five races are sufficient to obtain the horse's performance in recent races.

Note: Selections can be made in any of the following ways. Choose data from:

1. Last race.

2. Best of last two races.

3. Any number of races within last six months.

The entries from the Daily Racing Form are made using the following format:

- Using exact abbreviations from the DRF; e.g., Track Condition: FT.

- All times are entered in seconds; e.g., 1:104 = 70.8. (this can be entered as 60 + 10 + 4/5)

Multiply 1 minute by 60	=	60 seconds
Add 10	=	70 seconds
Multiply 4/5 by 2 (4/5 X 2)	=	.08 seconds
TOTAL	=	70.8 seconds

- All numbers are entered in decimal; e.g., 6 ½ = 6 · 5. (this can be entered as 6 + 1/2)
- If lengths behind is HEAD (hd), NOSE (ns) or NECK (nk), enter Zero (0).
- If the horse is in first position, enter Zero (0) for lengths behind.

The following example will familiarize you with the operation of the 5/10 Program.

As shown in the DRF record, Shamgo has had nine races in the last six months. Five history races are used in this sample evaluation.

7th SANTA ANITA

1 1/16 MILES. (1.40 1/5) CLASSIFIED ALLOWANCE. Purse $40,000. 4 year olds and upward which are non-winners of $19,500 twice at one mile or ever since October 17. Weight, 122 lbs. Non-winners of two such races of $19,000 since then allowed 2lbs.; of such a race of $22,000 since December 25, 4 lbs.; of such a race of $19,000 since then, 6 lbs.; of such a race since July 21, 8 lbs. (Claiming races not considered.)

EARNINGS

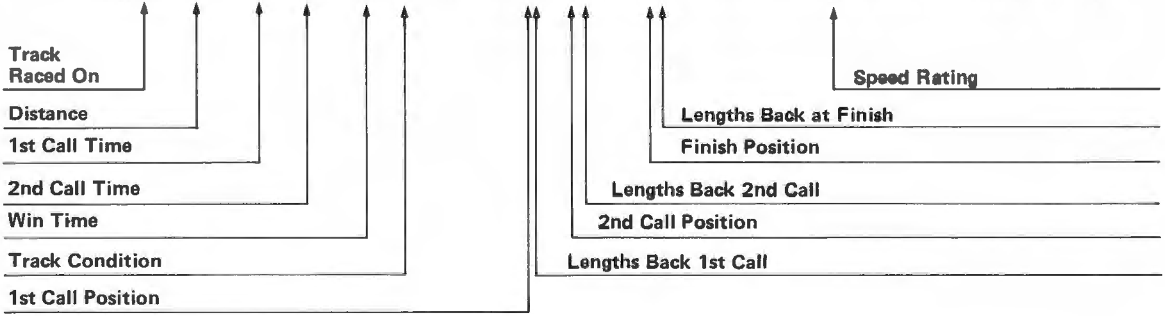
Shamgo*

B. h. 5; by Sham – Final Rush, by Final Riding
Br. – McLean'

Own. – Rogers Red Top Farm 120 Tr. – Sullivan John

1981	4	1	1	1	$34,600
1980	6	1	0	2	$18,635
Turf	3	0	0	0	

7 Mar 81-5SA	1	:45^3	1:09^4	1:35	ft	5¼	117	4^{2½}	3^1	2^{hd}	1^{hd}	Pincay L Jr^2	Alw	94	Shamgo, Sportful, Mindenao	8
28 Feb 81-8SA	1 1/16	:48	1:12^3	1:45^4	Sy	6	115	6^6	4^{4½}	5^{9½}	6^{8¼}	Pierce D^1	El Monte	63	King Go Go, Caterman, Drouilly	7
19 Feb 81-8SA	1 1/16	:46	1:89^3	1:41	ft	7¾	115	5^5	4^4	3^{2½}	3^{2¾}	Pierce D^4	Alw	93	Raisea Man, Crest of the Wave, Shamgo	8
8 Feb 81-7SA	7f	:21^3	:43^1	1:21^1	ft	17	116	10^{13}	7^{13}	4^3	2^{1¼}	Pierce D^2	Alw	93	Mindenao Shamgo, Gratification	10
6 Dec 80-6BM	1 1/16	:46^3	1:10^3	1:43^1	gd	*6-5	120	6^{5¾}	4^{4½}	3^{5½}	3^4	Meza RQ^5	Alw	79	Kobuk Country, Eagle Crest, Shamgo	8
22 Nov 80-6BM	1 1/16	:46^1	1:10^4	1:42^2	ft	*9-5	114	3^4	3½	1^3	1^5	Meza RQ^5	Alw	87	Shamgo, Dewan and Only, Leos Aussie	6
16 Nov 80-6SA	1 1/16	:47^1	1:11	1:41^4	ft	4½	115	3^2	3^{1½}	5^{2¾}	5^{5½}	Pierce D^5	Alw	86	Peregrintor, Timbo, Premier Ministre	6
5 Nov 80-8 SA	1	:46^1	1:10^2	1:35^3	ft	3¾	115	5^4	5^{2¼}	5^{1¾}	4^{1¾}	Pierce D^6	Alw	89	Obraztsovy, Timbo, Hawkin's Special	6
24 Oct 80-8SA	6½f	:21^4	:44^1	1:15^2	ft	11	115	5^{6½}	5^9	4^4	3^3	Pierce D^3	Alw	90	Hawkin's Special, Unalakleet, Shamgo	6
21 Sept 80-10DMF	6f	:21^2	:43^4	1:07^4	ft	10	121	7^{8¾}	5^{12}	6^{9¾}	7^{15}	DelahoussayeE^2	Alw	84	Bck'n Time, Voom Amn Brothr	9



The entries to evaluate Shamgo are:

SHFT SPC	
SHFT M	TODAYS DIST(S/R): R ENTER
SHFT A	PAST PF RACE #: 1 (for first race entered) ENTER
SHFT S	PAST PF DIST(S/R): R ENTER
SHFT D	2ND CALL TIME: 6 9 . 8 ENTER
SHFT F	WIN TIME: 9 5 ENTER
SHFT G	TRACK COND: F T ENTER
SHFT H	2ND CALL POS: 3 ENTER
SHFT J	LB AT CALL: 1 ENTER
SHFT K	FINISH POS: 1 ENTER
SHFT L	LB AT FINISH: 0 ENTER
SHFT =	SPEED RATING: 9 4 ENTER

At this point you will hear a beep signaling the end of a history race.

SHFT A	PAST PF RACE #: 2 ENTER

Continue to enter past performance data as above for a total of five races, then enter earnings information.

The data you will need is shown in the chart below:

PAST PF RACE:	2	3	4	5
PAST PF DIST (S/R):	R	R	S,7	R
2ND CALL TIME:	72.6	69.6	43.2	70.6
WIN TIME:	105.8	101	81.2	103.2
TRACK COND:	SY	FT	FT	GD
2ND CALL POS.:	4	4	7	4
LB AT CALL:	4.5	4	13	4.5
FINISH POS:	6	3	2	3
LB AT FINISH:	8.75	2.75	1.25	4
SPEED RATING:	63	93	93	79

Now enter the earnings information as shown below:

SHFT Z	STARTS THIS YR: 4 ENTER
	STARTS PAST YR: 6 ENTER
SHFT X	1STS THIS YR: 1 ENTER
	1STS PAST YR: 1 ENTER
SHFT C	2NDS THIS YR: 1 ENTER
	2NDS PAST YR: 0 ENTER
SHFT V	3RDS THIS YR: 1 ENTER
	3RDS PAST YR: 2 ENTER
SHFT B	EARNINGS THIS YR: 3 4 6 0 0 ENTER
	EARNINGS PAST YR: 1 8 6 3 5 ENTER

This completes the entry of past performance data for Shamgo. You now compute Shamgo's Horse Score by pressing SHFT N. The > display should read HORSE SCORE = 84.83.

Note that the function keys on the keyboard are requested in the same sequence as the Daily Racing Form past performance data.

Variations

In certain cases, the program will ask for different call times or additional earnings data.

For instance:

SHFT D will ask for: 1ST CALL TIME: or 2ND CALL TIME:

SHFT H will ask for: 1ST CALL POS: or 2ND CALL POS:

These call variations occur when using route data to evaluate a sprint race and vice versa. Note that the lengths back at call (requested by SHFT J) is the same call shown in SHFT H.

If the number of starts for the year is less than the number of history races entered, the program will ask for past year data also. Continue to enter earnings data as requested.

Improving Predictions

Experience has shown that results will be improved by utilizing rules to consider certain unquantifiable parameters. These rules result in eliminating horses from the race entrants prior to performing your computer evaluation. These rules are:

Track—Do not consider horses that have not had at least one race at today's track during their last five races. It is impossible to predict the effects of new surroundings, different tracks or travel.

Layoffs—Do not consider any horse which has not had a race at today's track within 33 days for claimers; 60 days for allowance horses. Longer layoffs will cause past performance results to be unreliable. Occassionally a horse will work into shape by a series of workouts, but published workout times are usually unreliable.

Distance—Do not consider any horse which has not had a race at today's race distance in at least one of its last two races. Horses tend to do better at either long or short distances, but seldom both. Only exceptional horses do well at all distances.

Exception—If the horse has won at this distance some time in the past, then do not eliminate it.

Poor Finishes—Eliminate horses whose finish positions in the last two races total more than 16 lengths behind. It is reasonable to assume the horse has a problem and is not ready to win this race either.

You are now ready to use the 5/10 System. Good Luck!

Appendix A—Making a Backup

A Backup is a tape copy of a program and is an extremely effective method of insuring that an accident or equipment fault will not result in the loss of software. Your first action as owner of the Horse Race Analyst package should be to make working copies of the original cassette(s) and then put the originals away in a safe place.

Although it may be possible to make direct copies using two cassette recorders or on cassette duplicating equipment, the most reliable method is to use the computer itself to make the Backups. Also, for frequently used programs, you may wish to put them on separate cassettes for easier loading. Here are step-by-step instructions for making a Backup:

1. Connect the Cassette Interface to the cassette recorder and install the computer in the Cassette Interface.
2. Place the cassette containing the program(s) to be copied in the recorder and either rewind the tape to the beginning or position the tape to a blank area just prior to the desired program. Place the recorder in the "Play" mode. It is recommended that the volume control setting be between 8 and 10 on your recorder. If your recorder has a tone control, set it at maximum treble.
3. Turn on the computer, make sure that it is either in the DEF mode or RUN mode and type in: CLOAD" name " (name refers to the name of the program to be copied). To make absolutely sure that the program has loaded correctly, use the loading verification procedure as described in the sixth instruction of this appendix.
4. When the program has been loaded into the computer and the cassette has stopped, remove the cassette and replace it with the cassette which is to receive the program copy. Either rewind the tape to the beginning or position it to the point where the copy is to start. You should leave about ten seconds of blank space if the copy is to follow another program on the same cassette. Place the recorder in the "Record" mode.
5. Make sure that the computer is in either the DEF or RUN mode and type in: CSAVE" name ". The recorder will save your program.
6. Now rewind the cassette to the blank space just prior to the program, put the recorder into the "Play" mode and type in: CLOAD" name ".

This is the computer's verifying function. The recorder will start and compare the cassette copy with the program in the computer's memory. If the copy is good, the recorder will stop at the end of the program and the prompt sign (>) will reappear on the display. If an error occurred during the verification, the display will show an error message such as:

```
5................
```

If the error message appears on the display, check the recorder volume setting and try the CLOAD? function once more. If you still get an error, the tape copy is probably damaged. Use the CSAVE function once more and verify the load. It is recommended that you use Radio Shack Supertape or TRS-80 certified cassettes for backing up your Pocket Computer programs.

7. Backup each program using Steps 1 through 6 above.

8. Put the original cassettes away in a safe place and use them only for making working copies.

Appendix B—Maintenance

Maintenance of your Pocket Computer System is not difficult. Attention to the simplest points listed below should provide the best reliability and satisfaction:

1. Keep your program cassettes in their boxes when not in use. Do not expose cassettes to temperature extremes or magnetic fields. **Never** touch the exposed surface of the tape on the front edge of the cassette.

2. Clean and demagnetize the tape heads in the recorder at regular intervals. Follow the recommendations in the cassette recorder's manual.

3. The most reliable loading and saving is achieved by operating the cassette recorder on AC current, rather than batteries.

4. Use only fresh alkaline-type batteries in the Recorder and Cassette Interface when operating your system away from AC current.

5. Always press the recorder's "Stop" key immediately after loading or saving a program. This will release the pressure on the rubber roller which pulls the tape and prevent the roller from developing a permanent "flat" at the point of contact with the tape.

6. Always turn the computer OFF before installing it in or removing it from the Cassette Interface.

7. After removing the computer from the Cassette Interface, be sure to reinstall the protective plug to keep dirt out of the connector on the computer. Never touch the exposed parts on the Cassette Interface.

Appendix C—Summary of Functions

These SHFT functions are ordered as they are entered to evaluate a horse's past performance.

SHFT M	Requests distance (S/R) of today's race.
SHFT A	Requests past performance race number.
SHFT S	Requests distance of this race. If the distance is a sprint, it will also request the number of furlongs.
SHFT D	Requests either the first or second call time of the race being evaluated.
SHFT F	Requests the winning time.
SHFT G	Requests the track condition.
SHFT H	Requests either first or second call position.
SHFT J	Requests the lengths back at the call requested in preceeding action.
SHFT K	Requests the finish position.
SHFT L	Requests the lengths back at finish of race.
SHFT =	Requests the speed rating of the horse in the race.
SHFT Z	Requests the number of starts this year and then if that number is less than the number of history races entered, the program requests the number of starts last year.
SHFT X	Requests the number of firsts this year and possibly the number of firsts last year.
SHFT C	Requests the number of seconds this year and possibly the number of seconds last year.
SHFT V	Requests number of thirds this year and possibly the number of thirds last year.
SHFT B	Requests total earnings this year and possibly the total earnings last year.

SHFT N	Computes the horse score for today's race after history and earnings data are entered.
SHFT SPC	Displays the package copyright notice and title. Clears data memory of old data.

Appendix D—List of Abbreviations

5/10	Name of this program
Cond	Condition
DIST	Distance
F	Furlongs
FM	Firm (turf)
FR	Frozen Track
FT	Fast Track (dirt)
GD	Good Track (dirt or turf)
HD	Head or Hard (turf)
HY	Heavy Track (dirt)
LB	Lengths Back
M	Muddy Track (dirt)
MI	Miles
NK	Neck

Register	**Stored Data**
NO	Nose
PF	Performance
POS	Position
R	Route race (one to 1-3/16 mile)
S	Sprint race (less than one mile)
SF	Soft (turf)
SL	Slow track (dirt)
SY	Sloppy Track (dirt)
YL	Yielding (turf)
YR	Year

Appendix E—Variable Assignments

Register	Stored Data
A$	Alpha Input
B	Today's Distance
C	History Race
D	History Race Distance
E	Call Time (1st or 2nd)
F	Win Time
G	Track Condition
H	Call Position (1st or 2nd)
I	Lengths Back at Call (1st or 2nd)
J	Finish Position
K	Lengths Back at Finish
L	Speed Rating
M	Number of Starts
N	Number of Firsts
O	Number of Seconds
P	Number of Thirds
Q	Number of Fourths
R	Earnings
S	Early Speed
T	Readiness
U	Sum of Speed Factor
V	Consistency
W	Class
X	Horse Score
Z	Temporary Storage

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PAST PF RACE #	PAST PF DIST.	CALL TIME	WIN TIME	TRACK COND.	CALL POS.	LB at CALL	FINISH POS.	LB at FINISH	SPEED RATING
# of STARTS	# of 1sts.	# of 2nds.	# of 3rds.	EARNINGS	HORSE SCORE	TODAY'S DIST.	CLEAR/ START	HORSE RACE ANALYST Cat. No. 26-3530	